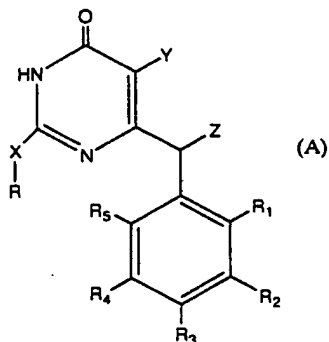


WHAT IS CLAIMED IS:

1. A compound of the formula:

5



wherein:

- X is -O, -CH₂, -CHK (wherein K is -H, -C₁₋₄alkyl, -C₃₋₆cycloalkyl), -S, -NK (wherein K is -H, -C₁₋₄alkyl, -C₃₋₆cycloalkyl), -aryl, -arylalkyl;
- 10 R is -H, -C₁₋₄alkyl (containing one or more of heteroatoms like O, S, N), -C₃₋₆cycloalkyl (containing one or more of heteroatoms like O, S, N), -aryl, arylalkyl, heterocycle;
- Y is -H, -C₁₋₄alkyl, -C₃₋₆cycloalkyl;
- Z is -H, -C₁₋₄alkyl, -C₃₋₆cycloalkyl;
- 15 R₁ is -H, -C₁₋₄alkyl, halogen, -NO₂, -OW (wherein W is -H, -CH₃, -aryl), -SW (wherein W is -H, -CH₃, -aryl);
- R₂ is -H, -C₁₋₄alkyl, -halogen, -NO₂, -OW (wherein W is -H, -CH₃, -aryl), -SW (wherein W is -H, -CH₃, -aryl);
- R₃ is -H, -C₁₋₄alkyl, -halogen, -NO₂, -OW (wherein W is -H, -CH₃, aryl), -SW (wherein W is -H, -CH₃, -aryl);
- 20 R₄ is -H, -C₁₋₄alkyl, -halogen, -NO₂, -OW (wherein W is -H, -CH₃, -aryl), -SW (wherein W is -H, -CH₃, -aryl);
- R₅ is -H, -C₁₋₄alkyl, -halogen, -NO₂, -OW (wherein W is -H, -CH₃, -aryl), -SW (wherein W is -H, -CH₃, -aryl), or a pharmaceutically acceptable salt or soluble derivative thereof.
- 25

2. A compound having formula A as claimed in claim 1 wherein

X = O Y = H Z = H R = sBu R₁ = F R₂ = H R₃ = H R₄ = H R₅ = F

X = O Y = H Z = H R = cPen R₁ = F R₂ = H R₃ = H R₄ = H R₅ = F.

5 3. A compound having formula A as claimed in claim 1 wherein

	X = S	Y = H	Z = H	R = sBu	R ₁ = NO ₂	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = H
	X = S	Y = H	Z = H	R = sBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = H
	X = S	Y = H	Z = H	R = CH ₃	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = H	R = iPr	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
10	X = S	Y = H	Z = H	R = nBu	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = H	R = iBu	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = H	R = sBu	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = H	R = cPen	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = H	R = cEs	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
15	X = S	Y = H	Z = H	R = CH ₃	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = H	R = iPr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = H	R = nBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = H	R = iBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = H	R = sBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
20	X = S	Y = H	Z = H	R = cPen	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = H	R = cEs	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = CH ₃	R = iPr	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = CH ₃	R = cPen	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = CH ₃	R = cEs	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
25	X = S	Y = H	Z = Et	R = iPr	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = Et	R = cPen	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = Et	R = cEs	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = H	Z = CH ₃	R = iPr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = CH ₃	R = iBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
30	X = S	Y = H	Z = CH ₃	R = nBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = CH ₃	R = sBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = CH ₃	R = cPen	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = CH ₃	R = cEs	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = Et	R = iPr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
35	X = S	Y = H	Z = Et	R = cPen	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = Et	R = cEs	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = CH ₃	R = cEs	-CH=CH-CH=CH		R ₃ = H	R ₄ = H	R ₅ = H
	X = S	Y = H	Z = H	R = sBu	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = H

	X = S	Y = CH ₃	Z = H	R = <i>s</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = H
	X = S	Y = CH ₃	Z = H	R = <i>s</i> Bu	R ₁ = Cl	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = Cl
	X = S	Y = CH ₃	Z = H	R = CH ₃	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = H	R = <i>i</i> Pr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
5	X = S	Y = CH ₃	Z = H	R = <i>n</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = H	R = <i>i</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = H	R = <i>s</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = H	R = <i>c</i> Pen	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = H	R = <i>c</i> Es	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
10	X = S	Y = CH ₃	Z = CH ₃	R = CH ₃	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = CH ₃	R = <i>s</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = CH ₃	R = <i>c</i> Pe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = Et	Z = H	R = <i>s</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = <i>i</i> Pr	Z = H	R = <i>i</i> Pr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
15	X = S	Y = CH ₃	Z = CH ₃	R = <i>i</i> Pr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = CH ₃	R = <i>n</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = CH ₃	R = <i>i</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = CH ₃	Z = CH ₃	R = <i>c</i> Es	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = H	Z = H	R = MeSMe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
20	X = S	Y = CH ₃	Z = H	R = MeSMe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = Et	Z = H	R = MeSMe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = S	Y = <i>i</i> Pr	Z = H	R = MeSMe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F

4. A compound having formula A as claimed in claim 1 wherein

25	X = NH	Y = H	Z = H	R = Et	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = H	R = <i>n</i> Pr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = H	R = <i>i</i> Pr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = H	R = <i>c</i> Pr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = H	R = <i>n</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
30	X = NH	Y = H	Z = H	R = <i>s</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = H	R = MeOEt	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = H	R = <i>c</i> Pe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = H	R = <i>c</i> Es	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = CH ₃	R = <i>c</i> Pe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
35	X = NH	Y = CH ₃	Z = H	R = <i>i</i> Pr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = CH ₃	Z = H	R = <i>s</i> Bu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = CH ₃	Z = H	R = <i>c</i> Pe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = CH ₃	Z = H	R = benz	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F

	X = NH	Y = CH ₃	Z = CH ₃	R = cPe	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = H	R = CH ₃	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = CH ₃	Z = H	R = CH ₃	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = CH ₃	Z = H	R = nPr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
5	X = NH	Y = CH ₃	Z = H	R = nBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = CH ₃	R = CH ₃	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = CH ₃	R = nPr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = CH ₃	R = iPr	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = CH ₃	R = nBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
10	X = NH	Y = H	Z = CH ₃	R = sBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = H	Z = CH ₃	R = cEs	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = CH ₃	Z = CH ₃	R = CH ₃	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = CH ₃	Z = CH ₃	R = nBu	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = NH	Y = CH ₃	Z = CH ₃	R = cEs	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
15	X = N	Y = H	Z = H	R = (CH ₃) ₂	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = H	Z = H	R = Me-Pip	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = H	Z = H	R = Morph	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = H	Z = H	R = S-morp	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = H	Z = H	R = Piper	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
20	X = N	Y = H	Z = H	R = Pyrroli	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = H	Z = H	R = Et ₂	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = H	Z = H	R = (nPr) ₂	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = CH ₃	Z = H	R = (CH ₃) ₂	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = CH ₃	Z = H	R = Me-Pip	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
25	X = N	Y = CH ₃	Z = H	R = Morph	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F
	X = N	Y = CH ₃	Z = H	R = S-morp	R ₁ = F	R ₂ = H	R ₃ = H	R ₄ = H	R ₅ = F

5. A pharmaceutically acceptable salt or soluble derivative of a compound of claim 1.
6. A process for the preparation of a compound having formula A as claimed in claim 1
 30 wherein X = O, wherein the proper methyl arylacetylalkylacetate is reacted with O-methylisourea in presence of calcium hydroxide; the so obtained 2-O-methyl(5-alkyl)-6-benzyl(substituted)uracils are reacted with the proper potassium alkoxide according to scheme A.
7. A process for the preparation of a compound having formula A as claimed in claim 1
 35 wherein X = S, wherein the proper ethyl arylacetylalkylacetate is reacted with thiourea in presence of sodium methoxide; the so obtained 5-alkyl-6-benzyl(substituted)-2-

thiouracils are reacted with methyl iodide or with an alkyl halide in a basic medium according to scheme B.

8. A process for the preparation of the compounds having formula A as claimed in claim 1 wherein X = NK (wherein K is -H, -C₁₋₄alkyl, -C₃₋₆cycloalkyl), wherein the proper S-methyl(5-alkyl)-6-benzyl(substituted)-2-thiouracil is reacted with the proper amine according to scheme C.
9. A method of preventing infection of HIV, or of treating infection by HIV or of treating AIDS, comprising administering to a mammal an effective amount of a compound as claimed in claim 1 or a pharmaceutically acceptable salt or soluble derivative thereof.
10. A pharmaceutical composition useful for inhibiting HIV reverse transcriptase, comprising an effective amount of a compound claimed in claim 1 or a pharmaceutically acceptable salt or soluble derivative thereof, and a pharmaceutically acceptable carrier.
11. A pharmaceutical composition useful for preventing or treating infection of HIV or for treating AIDS, comprising an effective amount of a compound as claimed in claim 1 or a pharmaceutically acceptable salt or soluble derivative thereof, and a pharmaceutically acceptable carrier.
12. A method of preventing infection of HIV, or of treating infection by HIV or of treating AIDS, comprising administering to a mammal an effective amount of a compound as claimed in claim 1 or a pharmaceutically acceptable salt or soluble derivative thereof in combination with another anti-HIV agent selected from the group consisting of abacavir, zidovudine, BILA 1906, BILA 2185, BM+51.0836: triazoloisoindolinone derivative, BMS 186,318: aminodiol derivative HIV-1 protease inhibitor, d4API, stavudine, efavirenz, HBY097, HEPT, KNI-272, L-697,593, L-735,524, L-697,661, L-FDDC, L-FDOC, nevirapine, foscarnet, PMEA, PMPA, Ro 31-8959, RPI-3121, SC-52151, SC-55389A, TIBO R82150, TIBO 82913, TSAO-m3T, U90152, UC: thiocarboxanilide derivatives, UC-781, UC-82, VB 11,328, amprenavir, XM 323, delaviridine, famciclovir, gancyclovir, penciclovir, indinavir, nelfinavir, ritonavir, saquinavir, DDI, DDC, Delaviridine, β -LddA, β -L-3'-azido-d5FC, carbovir, acyclovir, interferon, stavudine, (3'-azido-2',3'-dideoxy-5-methyl-cytidine), 3'-azido nucleosides, β -D-dioxolane nucleosides such as β -D-dioxolanylguanine (DXG), β -D-dioxolanyl-2,6-diaminopurine (DAPD), and β -D-dioxolanyl-6-chloropurine (ACP), D4T, FTC, 3TC, AZDU, and amprenavir.